

IN THE CLAIMS:

Please amend the claims as follows. The claims are in the format as required by 35 C.F.R. § 1.121.

1. (Previously Presented) A system for continuous purification of a gas flow comprising:
a first sodium fluoride trap coupled to a gas supply line, wherein said gas supply line conducts said gas flow;
a second sodium fluoride trap coupled to said gas supply line in parallel to said first sodium fluoride trap;
a switching mechanism operable to switch gas flow from said first sodium fluoride trap to said second sodium fluoride trap at the occurrence of a predefined event; and
one or more fluorine generation cells, wherein said one or more fluorine generation cells are coupled to said gas supply line and wherein said one or more fluorine generation cells provide said gas flow.

2. (Previously Presented) The system of Claim 1, wherein said gas flow comprises: fluorine; and
trace hydrogen fluoride.

3. (Previously Presented) The system of Claim 1, wherein said switching mechanism is operable to switch gas flow from said first sodium fluoride trap to said second sodium fluoride trap when said first sodium fluoride trap is approximately saturated.

4. (Previously Presented) The system of Claim 3, further comprising:
a first manifold operable to direct said gas flow from said gas supply line to said first sodium fluoride trap; and
a second manifold operable to direct said gas flow from said gas supply line to said second sodium fluoride trap.

5. (Canceled)

6. (Previously Presented) The system of Claim 1, further comprising:
a gas output line coupled to said first sodium fluoride trap and said second sodium fluoride trap; and
an output filter coupled to said gas output line.

7. (Previously Presented) The system of Claim 6, further comprising:
a low pressure buffer tank in fluid communication with said first sodium fluoride trap and said second sodium fluoride trap, wherein said low pressure buffer tank is located downstream of said output filter; and
a compressor in fluid communication with and downstream of said low pressure buffer tank, wherein said compressor is operable to compress gas from said low pressure buffer tank.

8. (Previously Presented) The system of Claim 1, further comprising:
a low pressure buffer tank in fluid communication with said first sodium fluoride trap and said second sodium fluoride trap; and
a compressor in fluid communication with and downstream of said low pressure buffer tank, wherein said compressor is operable to compress gas from said low pressure buffer tank.

Claims 9-31 (Canceled)

32. (Previously Presented) The system of Claim 1, wherein said parallel arrangement prevents gas flow between said traps.

33. (Previously Presented) The system of Claim 1, wherein said switching mechanism is operable to prevent gas flow through a specified one of said sodium fluoride traps at the occurrence of a predefined event.

34. (Previously Presented) The system of Claim 1, wherein said sodium fluoride traps are coupled to the gas supply line such that each trap is arranged between gas source and fabrication tool.

35. (Previously Presented) The system of Claim 2, wherein said sodium fluoride traps are coupled to the gas supply line such that each trap is arranged between a respective fluoride generation cell and a fabrication tool, and wherein said trace hydrogen fluoride reacts with at least one of said sodium fluoride traps such that said gas flow into said fabrication tool is substantially free from hydrogen fluoride.

36. (Previously Presented) A system for continuous purification of a gas flow comprising:

at least one fluorine generation cell, wherein said at least one fluorine generation cell is coupled to a gas supply line, wherein said at least one fluorine generation cell provides said gas flow;

at least two sodium fluoride traps coupled to said gas supply line, wherein said gas supply line conducts said gas flow, wherein said gas flow comprises fluorine and trace hydrogen fluoride, and wherein said at least two sodium fluoride traps are configured in parallel;

at least one manifold operable to direct said gas flow from said at least one fluoride generation cell to one of said at least two sodium fluoride traps; and

a switching mechanism operable to switch gas flow such that gas flow is directed to an operable sodium fluoride trap.

37. (Previously Presented) The system of claim 36, further comprising:

a low pressure buffer tank in fluid communication with said at least two sodium fluoride traps, wherein said low pressure buffer tank is located downstream of said at least two sodium fluoride traps; and

a compressor in fluid communication with and downstream of said low pressure buffer tank, wherein said compressor is operable to compress gas from said low pressure buffer tank.

38. (Previously Presented) The system of claim 37, further comprising a gas output line coupled to said at least two sodium fluoride traps and an output filter coupled to said gas output line.

39. (Previously Presented) The system of Claim 36, further comprising:

a negative pressure bulk storage tank in communication with said at least one fluoride generation cell, and

at least one individual tool compressor in fluid communication with and downstream of said negative pressure bulk tank, wherein said at least one individual tool compressor is operable to compress gas from said negative pressure bulk tank, and to supply, under positive pressure, process gas to at least one fabrication tool.

40. (Previously Presented) The system of Claim 1, wherein said gas flow consists of substantially pure fluorine gas.
41. (Previously Presented) The system of Claim 40, wherein said substantially pure fluorine gas is provided to a fabrication tool.
42. (Previously Presented) The system of Claim 1, further comprising a sodium-fluoride-trap-regeneration system, wherein the sodium-fluoride-trap-regeneration system comprises:
an apparatus to heat one of said sodium fluoride traps; and
an apparatus to pull vacuum on said heated sodium fluoride trap.
43. (Previously Presented) The system of Claim 36, wherein said gas flow consists of substantially pure fluorine gas.
44. (Previously Presented) The system of Claim 36, further comprising a sodium-fluoride-trap-regeneration system, wherein the sodium-fluoride-trap-regeneration system comprises:
an apparatus to heat one of said sodium fluoride traps; and
an apparatus to pull vacuum on said heated sodium fluoride trap.
45. (Previously Presented) The system of Claim 39, wherein said process gas is fluorine.
46. (New) The system of Claim 38, wherein said gas output line conducts said gas flow, and wherein said gas flow downstream of said output filter comprises an amount up to about 700 grams per hour.
47. (New) The system of Claim 46, wherein said gas flow downstream of said output filter comprises 99.9999 percent pure fluorine.
48. (New) The system of Claim 46, wherein said gas flow downstream of said output filter comprises less than 100 parts per billion total metals.
49. (New) The system of Claim 46, wherein said gas flow downstream of said output filter comprises less than 10 parts per billion sodium, cadmium and potassium impurities.